Table 9-2. Portland Harbor RI/FS Deliverable Descriptions and Submittal Deadlines

Phase	**Deliverable**[1]	**Purpose**	**Submittal Deadline**[2]	DateSORT
Ecological Risk Assessment	**Ecological Preliminary Risk Evaluation (PRE)**	Includes a risk characterization based on historical, pre-AOC, and Round 1 data for benthic invertebrates using the tissue-residue approach, fish, and wildlife. Results will be used, in part, to help identify COPCs related to contaminant concentrations in fish and invertebrate tissue. This applies primarily to risks to aquatic-feeding wildlife that consume fish or invertebrates from the river, and risks to invertebrates and fish containing the compounds. This COPC identification is narrowly focused because sediment data from Round 2 are needed to identify a comprehensive list of COPCs. The PRE will not rely on the benthic assessment technical memorandum, which addresses the analysis framework for the sediment toxicity data to be collected during Round 2. The preliminary risk estimates and the associated uncertainty will help to identify ERA data and information gaps that may be filled during subsequent investigations/evaluations prior to the baseline ERA.	90 days following EPA approval of PRE Approach TM	TBS
Ecological Risk Assessment	*Round 2 Benthic Assessment Report*	Uses the results of Round 2 sediment bioassays to implement the analyses described in the Benthic Assessment Interpretive Approach TM. Objectives are to 1) develop and apply a predictive relationship model between chemical concentrations in the sediment and bioassay responses; and 2) confirm toxicity in high priority areas.	180 days following completion of Round 2 bioassay sampling.	TBS

Phase	**Deliverable**[1]	**Purpose**	**Submittal Deadline**[2]	DateSORT
Ecological Risk Assessment	*Food Web Modeling Report*	Uses Round 2 data to supplement Round 1 data to perform additional runs of food web model identified in the food web model TM. If the available data were insufficient for selecting a food web model in the TM, a model will be selected after incorporation of the Round 2 data. If none of the steady-state models evaluated can be used to achieve the objectives outlined in the food web model TM, the need for the collection of additional data and/or the evaluation of non-steady state (i.e., time-varying) models that incorporate the results of hydrodynamic and fate and transport modeling will be discussed with EPA and its partners. Additional data needs for model calibration and validation (which will be separate from those data used to develop the model) will also be discussed. An approach and schedule for collecting additional data and food web model reports, if necessary, will be included.	90 days following completion of Round 2 surface sediment and summer 2004 surface water sampling and analysis	TBS
Feasibility Study	*Step 2 Natural Attenuation Evaluation Report*	Presents results from the data collected per the Step 1 Evaluation and Step 2 Field Sampling Plan and Data Evaluation Methods memorandum above. In addition, it will present data evaluations, including any necessary modeling efforts to identify potential areas for further investigation of natural attenuation as a remedial technology.	270 days following completion of Step 2 natural attenuation sampling activity	TBS
Feasibility Study	Step 3 Natural Attenuation TM and Field Sampling Plan	Presents proposed methods for determination of candidate areas for natural attenuation as a remedial technology. Includes methods for selection of sampling locations and types as well as data evaluation procedures (including any modeling) that will be employed once Step 3 data are received.	60 days following EPA approval of Step 2 Natural Attenuation Evaluation Report	TBS
Feasibility Study	*Step 3 Natural Attenuation Field Sampling Report*	Presents results from the data collected per the Step 3 Natural Attenuation Technical Memorandum and Field Sampling Plan memorandum above. Additionally presents data evaluations, including any necessary modeling efforts to identify candidate areas for natural attenuation as a remedial technology to be considered in the FS Report.	60 days following completion of Step 3 natural attenuation sampling	
Feasibility Study	Recontamination Potential Modeling Approach TM	Presents the types of sampling and data evaluation procedures that will be used to determine the level and extent of recontamination potential that may exist at the site. Includes the general types of sampling, the target locations of such sampling, and the data evaluation procedures (including any modeling) that will be used to determine the potential for recontamination after	150 days following completion of all Round 2 sampling activities	TBS

Phase	Deliverable[1]	Purpose	Submittal Deadline[2]	DateSORT
		remediation of sediments takes place.		
Feasibility Study	Refined Preliminary RAOs TM	The Refined RAOs Technical Memorandum will include updated RAOs and PRGs to be used in the FS. As required by the SOW, general types of PRGs (e.g., national or regional numeric sediment guidelines) will be considered when refining PRGs. However, refined PRGs will be primarily based on the results of the risk assessment and other work (e.g., food web modeling) conducted during the RI. As with the preliminary RAOs, the refined RAOs will specify the chemicals and media of interest, exposure pathways and receptors, and an acceptable chemical level or range of levels (i.e., a PRG). PRGs will be location-specific within the project study area where risks estimates vary across the study area due to differences in exposure levels/routes or other site-specific risk parameters.	90 days from receipt of EPA comments on Round 2 Groundwater Impacts Site Characterization Summary Report	TBS
Feasibility Study	Alternatives Development and Screening Report	Per Section 9.2 of the SOW this task is primarily a summarization of the results of the identification, assembly, refinement, and screening of remedial alternatives. It will contain the results of Sections 5.3 through 5.7 of Appendix A, which describes these studies in detail.	90 days from receipt of EPA comments on Refined Preliminary RAOs TM	TBS
Feasibility Study	**Draft FS Report**	As described in Appendix A, the LWG will complete the detailed analysis of remedial alternatives including recommending remedial alternatives that meet the Refined RAOs and include any appropriate restoration components. A justification for the selection of this recommendation will also be included. This recommendation, along with all the supporting analysis and information developed in Sections 3, 4 and 5 of Appendix A, will be submitted in a Draft Feasibility Study Report to EPA.	150 days from receipt of EPA comments on Draft RI Report and Baseline Risk Assessment Reports	TBS
Feasibility Study	**Final FS Report**	See Draft FS Report above	60 days from receipt of EPA comments on Draft FS Report	TBS
Field Sampling Plans	**Round 2B Sediment Coring FSP Addendum**	Describes Round 2B sediment coring sampling locations and procedures	60 days following receipt of EPA comments on Revised CSM	TBS
Field Sampling Plans	**Round 2 Groundwater Impacts Sampling FSP**	Describes groundwater sampling locations and procedures. Includes QAPP if necessary.	60 days following EPA approval of Groundwater Pathways TM.	TBS

Phase	**Deliverable**[1]	**Purpose**	**Submittal Deadline**[2]	DateSORT
Field Sampling Plans	**Round 2 Seep Sampling FSP**	Describes seep sampling locations and procedures. Includes QAPP if necessary.	60 days following EPA approval of Groundwater Pathways TM.	TBS
Field Sampling Plans	**Round 3 Surface Water FSP (if required)**	Describes surface water sampling locations and procedures. Includes QAPP if necessary.	120 days following completion of Round 2 surface water sampling if directed by EPA.	TBS
Field Sampling Plans	**Round 3 FSP**	Describes Round 3 sampling necessary to support baseline risk assessments, site characterization and/or feasibility study. Describes sampling locations and procedures. Includes QAPP if necessary.	180 days following completion of all Round 2 sampling	TBS
Hydrodynamic Modeling	Step 1 Hydrodynamic Modeling Results	Presents the development of the model grid to the Lower Willamette River and Multnomah Channel. Presents the preparation of model input and calibration data. Presents and analyzes the model calibration to observations (hydrodynamic and sediment). Presents a sensitivity analysis of study area processes. Recommends whether the 2-D model is adequate for application to evaluate remedial alternatives, or whether a 3-D model should be developed from the 2-D model grid. Identifies types and locations of additional data that could benefit the modeling processes.	120 days following EPA approval of Hydrodynamic Model TM	TBS
Hydrodynamic Modeling	Step 2 Hydrodynamic Modeling Results	Assuming that the 2-D model adequately represents hydrodynamic and sedimentation processes in the study area, the report presents the development of hydrodynamic and sediment conditions to be used to evaluate remedial alternatives. Presents and analyzes the results of the simulation of remedial alternatives. [If a 3-D model is needed, or if significant additional data are needed to validate either the 2-D or 3-D model, the report also presents the re-calibration of the model.]	180 days following receipt of EPA comments on Step 1 Hydrodynamic Modeling Results	TBS
Project Scoping	Cultural Resource Survey	Reviews agency records, historical documents, and other published and unpublished materials to define locations of known or reported cultural resources and locations at which cultural resources are likely to be present. The survey area extends from the mouth of the Willamette River to Willamette Falls. Will include information gathered by certain Tribes on traditional and present cultural use of the study area.	300 days following receipt of scope from EPA	TBS

Phase	**Deliverable**[1]	**Purpose**	**Submittal Deadline**[2]	DateSORT
Sampling Programs	*Not Applicable*	Initiate Sampling	30 days following EPA approval of applicable FSP or as directed by EPA.	TBS
Site Characterization	*Validated Analytical Results*	Validated analytical data will be provided to EPA within 90 days of each sampling activity (e.g., Round 2 surface sediment sampling, Round 2A sediment coring, Round 2B sediment coring, sediment beach sampling, surface water sampling, groundwater pathways sampling). Data will be provided in electronic format showing locations, media, and results. As specified in the AOC, and upon request, analytical data will be made available to EPA within 60 days of each sampling activity.	90 days following completion of each sampling activity, 180 days following completion of natural attenuation sampling	TBS
Site Characterization	*Field Sampling Reports*	A field sampling report will be prepared and submitted to EPA within 60 days of completing each Round 2 and Round 3 field sample collection effort (e.g., Round 2 surface sediment sampling, Round 2A sediment coring). Each field sampling report will summarize field sampling activities, including sampling locations (maps), requested sample analyses, sample collection methods, and any deviations from the FSP.	60 days following completion of each sampling activity	TBS
Site Characterization	Site Characterization Summary Reports	Sample analysis results will be reported in tabular format in site characterization reports within 120 days of completing sampling and analysis for each sampling activity. Chemical concentration maps showing the distribution of sample analysis results for selected COIs will be provided. Data validation reports and a summary of data validation results also will be included in each site characterization summary report. EPCs for human health will be submitted as interim deliverables with site characterization summary reports.	120 days following completion of each sampling and analysis activity	TBS
Site Characterization	Bioassay Data Report	Documents all activities associated with the collection, handling, and analysis of Round 2 bioassay samples. The following information will be included in the bioassay data report: a brief review of the study design and methods, data tables summarizing the testing, deviations from the protocols appended to the approved QAPP, copies of chain-of-custody forms, data validation reports, and tables of all raw data.	60 days following completion of Round 2 bioassay sampling and analysis	TBS

Phase	**Deliverable**[1]	**Purpose**	**Submittal Deadline**[2]	DateSORT
Site Characterization	Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report	Summarizes pre-AOC, Round 1, and Round 2 investigation results; present preliminary evaluation of risks to human health (as described in Appendix C of Work Plan) and ecological receptors (as described in Appendix B of Work Plan and associated technical memoranda) based on site-specific data for purposes of identifying COPCs 'risk drivers' and data gaps to be addressed in Round 3 sampling; provides a comprehensive update of the CSM; provides initial PRGs; presents a screening of pre-AOC, Round 1, and Round 2 data relative to PRGs; and identifies any data gaps to be addressed in Round 3. Also provides the most current results of the food web model, its application to development of initial PRGs, and food web modeling data gaps. This summary reviews the investigative activities and displays Site information and data documenting the location and characteristics of surface and subsurface features and contamination at the Site, including sample locations, chemical concentration distributions, and the results of any biological testing. This evaluation will include, to the extent practicable, COPC concentration distributions relative to known sources, and the extent of contaminant migration through the in-water portion of the Site. The data compilation and summary will provide EPA with a preliminary reference for evaluating the risk assessments, the development and screening of remedial alternatives, and the further identification of ARARs.	180 days from completion of all Round 2 sampling, excluding groundwater impacts sampling	TBS
Site Characterization	**Draft RI Report and Baseline Risk Assessment Reports**	Includes 1) a characterization of the distribution of chemicals and sources that affect the river; 2) an assessment of ecological risk including risks to benthos, fish, wildlife, and other receptors of concern; 3) an assessment of human health risks from contact with sediment and water, and fish and shellfish ingestion; 4) a preliminary delineation of SMAs and sediment volumes that pose unacceptable risks; 5) a preliminary delineation of principal threat areas, and 6) a preliminary understanding of the potential for natural attenuation as a remedial alternative.	180 days from completion of Round 3 sampling.	TBS
Site Characterization	**Final RI Report and Baseline Risk Assessment Reports**	See draft RI Report above.	90 days from receipt of EPA comments on Draft RI Report and Baseline Risk Assessment Reports	TBS

Phase	Deliverable[1]	Purpose	Submittal Deadline[2]	DateSORT
Hydrodynamic Modeling	Hydrodynamic Modeling TM	Presents and analyzes existing data about physical processes that could influence hydrodynamic and sedimentation in the Lower Willamette River. Identifies those processes that should be included in a model description of the study area. Proposes the model to be used to simulate hydrodynamic and sedimentation processes in the Lower Willamette River. Proposes the extent of the area to be modeled, and the approach to model calibration and application.	4/4/2003	20030404
Field Sampling Plans	**Round 2 Shorebird FSP Addendum**	Describes sampling locations and procedures for Round 2 beach sampling to support ecological and human health risk assessments	2/24/2004	20040224
Field Sampling Plans	**Round 2 Surface Water FSP**	Describes surface water sampling locations and procedures	4/2/2004	20040402
Project Scoping	**Round 2 Quality Assurance Project Plan**	Describes laboratory and quality assurance/quality control procedures applicable to Round 2 sediment and surface water sampling	4/12/2004	20040412
Feasibility Study	*2003 Sediment Stake Results Report*	Describes data collected in 2003 from shoreline stakes that measure changes in sediment elevation changes throughout the ISA. These data will be compared to available bathymetry changes in deeper waters near these stations.	4/16/2004	20040416
Feasibility Study	Step 1 Natural Attenuation Evaluation and Step 2 Field Sampling Plan and Data Evaluation Methods TM	Describes the selection of sampling locations and types based on Step 1 of the Natural Attenuation Evaluation process described in Appendix A. Also describes the field sampling plan for Step 2 of the process as well as the data evaluation procedures that will be employed once Step 2 data is received. EPA may request that the field sampling plan be separated from the data evaluation procedures, resulting in two separate submittals (Round 2 FSP Addendum and Natural Attenuation Data Evaluation Methods TM).	4/1/2004	20040416
Ecological Risk Assessment	**TRV Selection TM**	Explains the identification process of chemicals of interest and the selection process of TRVs based on Round 1 data to be used in the ERA. The methods and guidelines used to prioritize the available literature for TRV selection, detailed discussion of the selection process for each TRV, and the results of the TRV selection process for each receptor (i.e., benthic invertebrate tissue-based approach, fish, bird, and mammals) will also be included. For wildlife and dietary update to fish, TRVs will be based on conservative assumptions using a food-web model. For	4/28/2004	20040428

Phase	Deliverable[1]	Purpose	Submittal Deadline[2]	DateSORT
		wholebody fish tissue and invertebrate tissue, tissue-based TRVs will be developed for direct comparison to Round 1 tissue data. The technical memorandum will present the recommended TRVs for wildlife, fish, and invertebrate tissue. Amphibian and plant TRVs will be developed following collection of Round 2 surface water and sediment data.		
Ecological Risk Assessment	**Preliminary Risk Evaluation Approach TM**	Explains approach for Preliminary Risk Evaluation (PRE). Includes outline of PRE and description of how risks to aquatic feeding wildlife and fish and invertebrates will be assessed in the PRE. Describes how the various receptor groups (i.e., fish, birds, mammals) will be assessed with respect to potential exposure and how data from each medium will be aggregated to estimate EPCs. [Note: TRVs for wildlife, fish, and invertebrate tissue will be approved by EPA before this TM is approved.]	5/28/2004	20040528
Ecological Risk Assessment	**Benthic Assessment Interpretive Approach TM**	Describes the development and application of a predictive relationship model between chemical concentrations in the sediment and bioassay responses. Several different explorative approaches to evaluate the relationship will be described including, but not limited to determining the reliability of published sediment quality guidelines to predict toxicity in Portland Harbor sediments, and developing site-specific relationships between chemical contaminants detected in sediment and toxicity (e.g. logistic regression model). Other models may be identified. The appropriate model or approach may vary for different COPCs, receptors, or uses. This technical memorandum will also propose the collection of bioassay samples at reference locations for later use in risk characterization and risk management.	5/28/2004	20040528
Human Health Risk Assessment	*Fish Tissue Exposure Point Concentrations Interim Deliverable*	Exposure point concentrations (EPCs) for fish and crayfish tissue for human health evaluation. Information will be provided in a format agreed to by EPA and the LWG. EPCs will be calculated as described in Appendix C of the work plan.	6/1/2004	20040601
Field Sampling Plans	**Round 2A Sediment Coring FSP Addendum**	Describes Round 2A sediment coring sampling locations and procedures.	6/5/2004	20040605
Ecological Risk Assessment	**Comprehensive ERA Approach TM**	Characterizes how the various receptor groups (i.e., benthic invertebrates, fish, birds, mammals, and plants) will be assessed with respect to potential exposure and how data from each	6/27/2004	20040627

Phase	Deliverable[1]	Purpose	Submittal Deadline[2]	DateSORT
		medium will be aggregated to estimate exposure point concentrations (EPCs). Linkage between assessment endpoints and measures, including prioritization of lines-of-evidence for risk management decisions will be presented. This memorandum will also describe the analysis framework for assessing each assessment endpoint in the risk characterization. Spatial data analysis methods that account for habitat preferences for each species to be evaluated in the baseline ERA will also be presented. Chemical-specific evaluation methods will be discussed.		
Human Health Risk Assessment	*Toxicity Values Interim Deliverable*	Presents a summary of selected toxicity values for chemicals detected in Round 1 beach sediment and biota evaluated for human health. Toxicity values for additional COPCs identified from subsequent sampling rounds will be added, any values updated prior to future risk evaluations will be revised as needed through discussion with EPA. The hierarchy of sources for toxicity values for the HHRA is defined in Section 4.1 of Appendix C.	7/1/2004	20040701
Feasibility Study	Facility Siting Inventory Report	Presents an inventory of possible disposal sites and screens those sites based on several criteria (see Appendix A) to obtain a refined list of potential disposal sites for contaminated sediments.	7/12/2004	20040712
Project Scoping	**Ecological and Human Health Groundwater Pathways Assessment/ Groundwater Sampling Approach TM**	Specifies a framework for identifying data uses and data needs for evaluating the effects of COIs in groundwater discharging to the Transition Zone and surface water. Identifies which sites to conduct additional evaluation of the groundwater pathway to the river, summarizes exposure scenarios to COIs discharging to the Transition Zone and surface water, identifies how existing data and field data collected as part of the RI/FS will be used, establishes a process for identifying locations where additional data to assess groundwater discharge are needed, and identifies data needs from those locations.	7/12/2004	20040712
Ecological Risk Assessment	Food Web Model TM	Provides details on the use of BSAFs and/or a food web model for the RI/FS. The TM will include the objectives for selection of either the BSAFs and/or a food web model, including the need to assess steady state versus time-varying conditions at the site as well as spatially varying conditions. The TM will describe the model selection process, including the use of historical data and data collected in Round 1 (e.g., co-located sediment and tissue	7/28/2004	20040728

Phase	Deliverable[1]	Purpose	Submittal Deadline[2]	DateSORT
		samples) to perform initial runs of the candidate food web models. The following components of the model will be described: model setup, model calibration, model validation, sensitivity analysis and uncertainty analysis. The sensitivity and uncertainty analysis will identify parameters that have the greatest impact on the results. The results of this initial modeling effort, as well as the results of the sensitivity and uncertainty analyses, will be used to select the preferred food web model that will be further evaluated after collection of Round 2 data and to identify data gaps in the food web model. The level of effort needed to apply the model should be discussed, for both the modeling itself as well as for collecting additional site-specific data (other than Round 2 data, which will be incorporated into the food web model report), if needed. The TM should also give examples of other sites where the selected food web model has been calibrated and validated in an environment similar to the Portland Harbor site.		
Human Health Risk Assessment	Round 1 Data Gaps Analysis Interim Deliverable	Analyzes Round 1 data to determine if data gaps for fish tissue or beach sediment exist for the HHRA.	7/28/2004	20040728
Project Scoping	**Process to Identify COPCs TM**	Describes the process and timing for identifying COPCs based on Round 1 and Round 2A data. Result of the screening will be identification of COPCs that will be the focus of future sampling rounds and risk analysis and will be limited to those chemicals that are identified as COPCs by screening methods or based on preliminary risk estimates. Descriptions of COPC screening methods used in the ERA and HHRA will be included. This technical memorandum will identify the steps in the RI process at which COPC identification will occur (e.g., the Ecological Preliminary Risk Evaluation and Round 2 Site Characterization and Summary Report). The technical memorandum will also identify potential interim steps at which additional risk evaluation may be needed to support data gaps analysis or risk communication needs.	7/28/2004	20040728
Project Scoping	Conceptual Site Model Update	Presents existing upland site information for potential sources and source-related data as well as data on potential past and/or current pathways to sediment, surface water, and Transition Zone water, from groundwater, storm and wastewater discharges,	8/17/2004	20040817

Phase	Deliverable[1]	Purpose	Submittal Deadline[2]	DateSORT
		erosion, and over-water activities. The update will focus on providing detailed data on the groundwater transport pathway to facilitate scoping of Round 2B subsurface sediment sampling. The CSM will be more completely updated in the Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report.		
Human Health Risk Assessment	**EPC Calculation Approach TM**	Describes the process for calculating EPCs for in-water sediment, surface water, and seep water (see Section 3.4 of Appendix C).	9/15/2004	20040915
Human Health Risk Assessment	*Summary of Exposure Factors Interim Deliverable*	Provides a summary of all exposure factors developed for use in the HHRA by receptor and exposure pathway. Exposure factors are discussed qualitatively in several parts of Appendix C and specifically in Section 3.5.1 (Receptor Specific Assumptions) and are presented in Tables 5 through 14 of Appendix C for beach sediment and surface water. Exposure factors for media and pathways not included in the Work Plan (i.e., in-water sediment, seep water) also will be included in the interim deliverable and will be developed through discussions with EPA.	12/1/2004	20041201
Project Scoping	Process for Derivation of PRGs TM	Explains the approach to be used for developing PRGs. We anticipate development of initial PRGs after Round 2 that will be used in identifying data gaps for Round 3. We expect that these initial PRGs will be revised based on results of Round 3 and used to develop refined PRGs for use in the FS. In addition to addressing the requirements of the SOW, the possible approaches include deriving site-specific BSAFs, using an aquatic food web model, using the benthic predictive model, and/or evaluating potential reduction in risk under various exposure scenarios.	1/20/2005	20050120
Human Health Risk Assessment	*HHRA Uncertainty Analysis Outline*	Discusses the areas of uncertainty inherent in the risk assessment process (such as estimates of exposure and toxicity).	3/1/2005	20050301
Feasibility Study	Facility Siting Re-Screen Report	Presents an additional screening of potential disposal sites identified from the Inventory Report (above) based on Portland Harbor specific information that will be available later in the RI/FS process (e.g., areas and volumes of sediments that are potentially contaminated). The report will present a refined list of disposal sites for further evaluation (see Appendix A).	3/14/2005	20050314
Project Scoping	*Approach to Determining*	Describes the definition and approach for determining background levels for the Site. This information will be used,	6/21/2005	20050621

Phase	Deliverable[1]	Purpose	Submittal Deadline[2]	DateSORT
	Background for the Portland Harbor Superfund Site / Process for Delineating the Extent of Contamination Upstream and Downstream of the ISA	following the risk characterization in the risk assessment, as a risk management tool, consistent with EPA guidelines (EPA 2002c). Describes the general approach to determine the data and analyses needed upstream and downstream of the ISA for EPA to determine Site boundaries.		
Human Health Risk Assessment	*COPC Selection Interim Deliverable*	Describes COPC selection methods for beach sediment, in-water sediment and surface water (see Section 2.3 of Appendix C). This interim deliverable will include a description of these procedures and the resulting COPC lists for these media. A list of detected chemicals in fish tissues will be included. Any other media that may be included in the HHRA will be screened for COPCs according to methods determined through future discussions with EPA and its partners. For purposes of the RI/FS and associated baseline risk assessment, COPC identification will be developed for the Comprehensive Round 2 Site Characterization Summary Report. However, additional COPC selection may be needed to support interim risk communication needs outside of the RI/FS, such as the ODH public health assessment that is scheduled to be completed before the RI/FS.	8/21/2005	20050821
Feasibility Study	Literature Survey of Treatability Studies	This memorandum is described in detail in Appendix A. In summary, it will contain a review of literature to determine: 1) which treatment technologies are effective and cost competitive (potentially suitable) as compared to other remedial technologies, and 2) for those potentially suitable technologies, whether treatability studies would be needed to determine the appropriateness of the technologies for this specific site. The survey will contain a conclusion section that will describe whether further treatability studies are needed, and if so, the general extent of those studies.	9/9/2005	20050909
Feasibility Study	Facility Siting Final Ranking Report	Uses the list of disposal sites from the Facility Siting Re-Screen Report (above), and criteria and methods described in Appendix A, to obtain a final ranking of potential disposal sites for Portland Harbor contaminated sediments.	4/12/2006	20060412

Notes:

[1] - **Bolded Deliverables** are primary deliverables per Section XIX., Paragraph 4 of AOC (EPA 2001a).
Unbolded Deliverables are secondary deliverables per Section XIX, Paragraph 5 of AOC.
Italicized Deliverables do not have stipulated penalty amounts.

[2] - Listed Submittal Deadlines are for draft documents. Unless otherwise specified, all final documents are due to EPA 30 days following receipt of comments from EPA.